



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,833	07/28/2006	Toshiaki Morita	2691-000045/US	9826
30593	7590	10/22/2008	EXAMINER	
HARNESS, DICKY & PIERCE, P.L.C.			DEFRANK, JOSEPH S	
P.O. BOX 8910			ART UNIT	PAPER NUMBER
RESTON, VA 20195			3724	
MAIL DATE		DELIVERY MODE		
10/22/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/587,833	<b>Applicant(s)</b> MORITA, TOSHIAKI
	<b>Examiner</b> JOSEPH DEFRAK	<b>Art Unit</b> 3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 18 September 2008.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 11-20 is/are pending in the application.

4a) Of the above claim(s) 12,13 and 17-20 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 11 and 14-16 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 28 July 2006 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 7/28/06

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Claims 12, 13, and 17-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 9/18/08.
2. Applicant's election with traverse of group III (Claims 14 and 15) in the reply filed on 9/18/2008 is acknowledged. The traversal is on the ground(s) that the subject matter of claims 11 and 16 is patentable over the prior art as cited in the International Search Report. This is not found persuasive because the claims are not patentable, as currently presented, over the prior art as disclosed in this office action.

The requirement is still deemed proper and is therefore made FINAL.

***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Specification***

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. **It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.** The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because it is too long. Correction is required. See MPEP § 608.01(b).

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) **TITLE OF THE INVENTION.**
- (b) **CROSS-REFERENCE TO RELATED APPLICATIONS.**
- (c) **STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.**
- (d) **THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.**
- (e) **INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.**
- (f) **BACKGROUND OF THE INVENTION.**
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) **BRIEF SUMMARY OF THE INVENTION.**
- (h) **BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).**
- (i) **DETAILED DESCRIPTION OF THE INVENTION.**
- (j) **CLAIM OR CLAIMS (commencing on a separate sheet).**
- (k) **ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).**
- (l) **SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).**

6. The disclosure is objected to because of the following informalities: The section headings are not correct. Further, the alignment of the text makes certain areas difficult

to read because the words are pushed together. A couple examples of this can be found on page 9, line 11; page 12, line 4; and page 16, line 13.

Appropriate correction is required.

***Drawings***

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 27 (page 17 and 18). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 15, 21, and 24. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet,

even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

9. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "1" has been used to designate both sheet to be cut (figures 1A and 1B) and the cutting head area (figure 3); further, the specification refers to reference character "14" as both the cover sheet and the cutting blade. Examiner notes that it appears as though the cover sheet should be referenced as "15" based on the drawings. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. The phrase "taking a part that is cut off a sheet material as a reference" is unclear. Examiner is not certain what the "part that is cut off a sheet material" is exactly a reference to. Further, is this "a sheet material" different than the "a sheet material" previously referenced in claim 11? For the purpose of examination in this action, the claim will be interpreted as the following: "The method of claim 14, wherein the suction state is adjusted in stages as cutting progresses, by adjusting for losses in suction from cuts in the sheet material." Examiner further notes that the first part of claim 15, "wherein the suction state is adjusted in stages as cutting progresses," also fails to further limit as this is, word for word, stated in claim 14, upon which claim 15 depends.

#### ***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
15. Claims 11 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerber (US 3,682,750) in view of Kinta (US 5,277,092).
16. With respect to claim 11, Gerber discloses a method for adjusting suction of a cutting machine when cutting is performed with the cutting machine in which a sheet material (14) is sucked and held on a table (surface 42) and a cutting blade (20) is moved with respect to the table based on preset data, comprising: while an already-cut portion is covered with a sealing sheet (26) so as to prevent leakage from increasing, as cutting progresses. Gerber does not disclose the method further comprising the steps of confirming an extent of leakage from an already-cut portion, and adjusting a suction state so as to compensate for reduction, due to the leakage, in a holding force on the sheet material on the table, and in consideration of a covered state with the sealing sheet.

Kinta discloses a similar type cutting method and machine wherein a pressure sensor (D1) confirms an extent of leakage from an already-cut portion, and adjusting a suction state (blower speed based on an input pressure by 91) so as to compensate for reduction, due to the leakage, in a holding force on sheet material on the table. Kinta uses the pressure sensor to monitor the holding pressure and adjust the blower speed in order to hold a preset value of holding pressure (see column 1 lines 56-68). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the method of Gerber to include sensing means to detect pressure drops as a result of cutting and a feedback circuit to adjust the blower speed to maintain

the holding force in view of the teachings of Kinta. Examiner notes that the device of Gerber has a sealing sheet and the method of Kinta senses the pressure as a whole, so when placed with the method of Gerber, the sealing sheet is considered by the pressure sensor.

17. With respect to claims 14 and 15, the modified apparatus of Gerber discloses the method wherein the suction state is adjusted in stages as cutting progresses (both the masking and the suction adjustments are done during cutting), by adjusting for losses in suction from cuts in the sheet material.

18. With respect to claim 16, Gerber discloses a suction adjustment apparatus, of a cutting machine, for adjusting a suction state, when a sheet material (14) is cut by moving a cutting blade (20) based on preset data in the cutting machine in which a sheet material is sucked and held on a table (42), comprising: mask covering means (24) for covering an already-cut portion with a sealing sheet (26) so as to prevent leakage from increasing. Gerber does not disclose suction amount adjustment means for confirming an extent of leakage from an already-cut portion, and adjusting a suction state so as to compensate for reduction, due to the leakage, in a holding force on the sheet material on the table, and in consideration of a covered state with the sealing sheet.

Kinta discloses a similar type cutting machine wherein a pressure sensor (D1) confirms an extent of leakage from an already-cut portion, and adjusting a suction state (blower speed based on an input pressure by 91) so as to compensate for reduction, due to the leakage, in a holding force on sheet material on the table. Kinta uses the

pressure sensor to monitor the holding pressure and adjust the blower speed in order to hold a preset value of holding pressure (see column 1 lines 56-68). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the apparatus of Gerber to include sensing means to detect pressure drops as a result of cutting and a feedback circuit to adjust the blower speed to maintain the holding force in view of the teachings of Kinta. Examiner notes that the device of Gerber has a sealing sheet and the method of Kinta senses the pressure as a whole, so when placed with the method of Gerber, the sealing sheet is considered by the pressure sensor.

***Conclusion***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art references of Lallement (x2), Gerber et al., Pearl, and Kuchta are noted as considered pertinent to the applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH DEFRAK whose telephone number is (571)270-3512. The examiner can normally be reached on Monday - Thursday; 9am-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Daniel Prone/  
Primary Examiner, Art Unit 3724

Joseph De Frank  
Examiner  
Art Unit 3724

JD  
10/15/08  
/J. D./  
Examiner, Art Unit 3724